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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,820	12/12/2003	John Charles Calhoon	003797.00692	8835

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EXAMINER	
BERHANU, SAMUEL	

ART UNIT	PAPER NUMBER
2838	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/733,820	CALHOON ET AL.	
	Examiner	Art Unit	
	Samuel Berhanu	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 9/22/2005.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24,26 and 27 is/are pending in the application.

4a) Of the above claim(s) 22-24,26 and 27 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-21 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 12 December 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 09/15/2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of application numbers 10/733850 and 10/733760 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens (US 5,734,254) in view of Fernandez (5,371,453).

Regarding Claim 1, Stephens discloses in Figure 1, an apparatus for transmitting inductive energy, the apparatus comprising: an inductive charging source (40) including a memory (50), for storing computer readable instructions relevant to providing inductive energy; a processor unit (50) operatively coupled to the memory; a first transmission element (62) operatively coupled to the processor unit so as to provide the inductive energy; a housing for enclosing the memory and processor unit therein; and an inductive battery charger (10) separate but in proximity to the inductive charging source (Column 2, lines 13-19), the inductive battery charger including:

a battery pack connector capable of operatively receiving a battery pack (13, 14,15,16 and; a second transmission element (32) for receiving inductive energy from the first transmission element (62); a power supply (30) operatively coupled to the second transmission element, the power supply configured to output a direct current to the battery charger responsive to the inductive energy (Column 5, lines 55-58): Stephens does not disclose a battery charger for providing energy to the battery pack connector via a communication bus , the communication bus comprising at least a first wire and a second wire, the first wire for data transfer and the second wire for transmitting a clock signal, and a connector for operatively receiving a portion of the battery pack for logical communications with the processor unit (50), the connector in communication with the battery pack via at least a first wire and a second wire, the first wire for data transfer and the second wire for transmitting a clock signal. However, Fernandez discloses in Figure 1, a battery charger (100) for providing energy to the battery pack (120) connector via a communication bus (126, 148,127, 151, 152, 153, Column 3, lines 15-42), the communication bus comprising at least a first wire (126,151) and a second wire (148,152), the first wire for data transfer (Column 3, lines 30-334) and the second wire for transmitting a clock signal (Column 3, lines 38-41), and a connector (126,127, 153,151,152) for operatively receiving a portion of the battery pack for logical communications with the processor unit (130), the connector in communication with the battery pack via at least a first wire and a second wire, the first wire for data transfer and the second wire for transmitting a clock signal. It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify Stephens's

communication ports and add a data and a clock communication wires as taught by Fernandez in order to achieve effective data transfer between the battery and the charger for the benefit of effective and secure battery charging system.

Regarding claim 3, Stephens discloses a communications device for receiving and transmitting data (20,50) and the communications device being operatively coupled to the transmission element (24,54)

Regarding claim 4, Stephens discloses an apparatus further comprising an antenna (24,54) and a communications device configured to receive (24,54) the computer readable instructions and configured to transmit (24,54) the instructions to the antenna for wireless data communications to a battery charger assembly (Column 3, lines 41-49).

Regarding claim 5, Stephens discloses a processor unit (50) is configured to receive a plurality of power parameters from the battery pack (Column 3, lines 59-67, column 4, lines 1-6).

Regarding Claim 7, Stephens discloses an apparatus comprising a plurality of transmission elements responsive to receiving a transmission from a battery charging assembly (24, 38, 68, 54,32,62).

4. Claims 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as being unpatentable over Parks et al. (US 5,455,466) in view of Fernandez (5,371,453).

Regarding claim 8, Parks et al disclose in Figures 1 and 2 an apparatus configured for receiving inductive energy, comprising: a memory for storing computer readable data

(228) relevant to receiving the inductive energy; a processor unit (228) for processing the computer readable data; a coil configured for receiving inductive energy (200b); a power supply operatively coupled to the processor unit and the coil (Column 3, lines 61-67, Column 4, lines 1-4); the power supply configured to output a direct current responsive to the inductive energy (Column 2, lines 43-49); a battery charge (224) for supplying energy to a battery pack (225); and a connector (222) for operatively receiving a portion of a battery pack for logical communications with the processor unit (220,224,226). the connector in communication with the battery pack via at least a first wire and a second wire, the first wire for data transfer and the second wire for transmitting a clock signal. Parks et al. do not disclose, explicitly the connector in communication with the battery pack via at least a first wire and a second wire, the first wire for data transfer and the second wire for transmitting a clock signal. However, Fernandez discloses in Figure 1,the connector (126, 148,127, 151, 152, 153, Column 3, lines 15-42) in communication with the battery pack (120) via at least a first wire (126,151) and a second wire (148,152), the first wire for data transfer (Column 3, lines 30-334) and the second wire for transmitting a clock signal (Column 3, lines 38-41). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify Parks et al. Communication lines and add a data and a clock communication wires as taught by Fernandez in order to achieve effective data transfer between the battery and the charger for the benefit of effective and secure battery charging system.

Regarding claim 10, Parks et al disclose a communications device (220) operatively coupled to the pickup coil (220).

Regarding claim 11, Parks et al disclose the communications device (220) is configured to receive the computer readable data and transmit the data to the coil (200b).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens (US 5,734,254) in view of Fernandez (5,371,453), as applied to claim 1 above, and further in view of Stobbe (US 6,275,143).

Regarding claim 2, Stephens and Fernandez disclose all of the claim limitations, except the apparatus in which the memory includes authentication data for authenticating the battery charger assembly for the inductive energy transmission. However Stobbe discloses the apparatus in which the memory includes authentication data for authenticating the battery charger assembly for the inductive energy transmission (Column 6, lines 5-20).). It would have been obvious to a person having ordinary skill in the art at the time of the invention to implement authentication data transfer means in

Stephens battery pack and charging system as taught by Stobbe in order to protect against unintentional or unwanted battery charging.

Regarding claim 6, Stobbe discloses a processor unit (18) is configured to receive a digital security certificate from a battery charger assembly (Column 6, lines 5-20).

7. Claims 9, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parks et al. (US 5,455,466) in view of Fernandez (5,371,453), as applied to claim 8 above, and further in view of Stobbe (US 6,275,143).

Regarding claim 9, Parks et al. and Fernandez disclose all of the claimed invention, except the processor unit is configured to provide authentication data for inductive energy recetiption. However, Stobbe discloses the apparatus in which the processor unit is configured to provide authentication data for inductive energy recetiption (Column 6, lines 5-20). It would have been obvious to a person having ordinary skill in the art at the time of the invention to implement authentication data transfer means in Parks et al. inductive coupling system as taught by Stobbe in order to protect against unintentional or against unwanted battery charging.

Regarding claim 13, Stobbe discloses the processor unit is configured to provide a digital certificate to a power source (Column 6, lines 5-20).

Regarding claim 15, Stobbe discloses the antenna (52) and a communications device (22,24) configured to receive the computer readable data and configured to transmit the data to the antenna for wireless data communications to a power source (Column 5, lines 35-45).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parks et al. (US 5,455,466) in view of Fernandez (5,371,453), as applied to claim 8 above, and further in view of Wendelrup et al. (US 6,291,966).

Regarding claim 12, Parks et al. and Fernandez disclose all of the claimed invention, except the processor unit is configured to receive a plurality of power parameters from the battery pack; store the power parameters in the memory; and transmit the power requirements to a power source which provides inductive energy. However, Wendelrup et al. disclose in Figures 1 and 2 processor unit (114) is configured to receive a plurality of power parameters from the battery pack (113); store the power parameters in the memory (116); and transmit (117,106) the power requirements to a power source, which provides inductive energy (Column 4, lines 31-52). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify Parks et al. inductive coupling system in order to transmit battery parameter to electrical source as taught by Wendelrup et al. to provide effective battery monitoring system.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parks et al. (US 5,455,466) in view of Fernandez (5,371,453), as applied to claim 8 above, and further in view of Garcia et al. (5,963,012).

Regarding claim 14, Parks et al. and Fernandez disclose all of the claimed invention, except the processor unit is configured to draw electrical power from the battery pack; and responsive to receiving an indication of inductive energy at the coil; the processor unit configured to draw electrical power via the coil. However, Garcia et

al. disclose in Figure2 and 3, the processor unit (310) is configured to draw electrical power from the battery pack (304) and responsive to receiving an indication of inductive energy at the coil the processor unit configured to draw electrical power via the coil (208) (column 3, lines 17-52). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify Parks et al. inductive coupling system in order to transmit battery parameters to control unit as taught by Graci et al. so that the device can make any necessary charging adjustments.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 16, 17, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Garcia et al. (US 5,963,012).

Regarding claim 16, Garcia et al discloses in Figures 2 and 3 a computer implemented method of providing battery assembly, wirelessly receiving a polling message from a source (Column 2, lines 47-59), the polling message (electromagnetic resonant wave) including energizing and de-energizing of a transmission element in the source (204) at a predetermined elapsed time value (For certain period of time is starts signal transmission when the electro magnetic waves are generated by the excitation circuits, and stops for certain period of times when the two circuits are not in close distance); and receiving inductive power from the source (Column 2, lines 30-59).

Regarding claims 17 and 21, Garcia et al. disclose the step of transmitting includes a step of transmitting power parameters to the source (column 2, lines47-59).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia et al. (US 5,963,012) in view of Stobbe (US 6,275,143).

Regarding claim 18, Garcia et al. disclose the claimed limitation, except the step of transmitting includes a step of transmitting authenticating data to the source. However, Stobbe discloses the step of transmitting includes a step of transmitting authenticating data to the source. It would have been obvious to a person having ordinary skill in the art at the time of the invention to implement authentication data transfer means in Garcia et al. wireless battery charging system as taught by Stobbe in order to protect against unintentional or unwanted battery charging.

14. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia et al. (US 5,963,012) in view of Parks et al. (US 5,455,466).

Regarding claim 19, Garcia et al. disclose all the claim limitation, except a step of initiating a step of converting the inductive power to a direct current responsive to the step of receiving. However, Parks et al. disclose in Figure 1 a step of initiating a step of

converting the inductive power to a direct current responsive to the step of receiving (Column 2, lines 35-50). It would have been obvious to a person having ordinary skill in the art at the time of the invention to add a charging rectifier circuit in Garcia et al wireless battery charging system as taught by Parks et al. in order to supply direct current appropriate for charging the battery pack.

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia et al. (US 5,963,012) in view of Wendelrup et al. (US 6,291,966).

Regarding claim 20, a step of receiving power parameters from battery pack (113) and storing the power parameters in a computer readable memory (116) (Column 4, lines 31-52. It would have been obvious to a person having ordinary skill in the art at the time of the invention to add a computer data storage element as taught by Wendelrup et al. in Garcia et al device in order to monitor battery status.

Response to Arguments

16. Applicant's arguments filed 9/22/2005 have been fully considered but they are not persuasive.

Regarding Claim 16, Garcia teaches a polling message as a magnetic resonant wave which establishes a mutual induction power transfer between the coils, please see the above rejection paragraph 3 and Column 3, lines 19-40 of Garcia's prior art.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel Berhanu whose telephone number is 571-272-8430. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB

KARL D. EASTHOM
PRIMARY EXAMINER